

Notice of Allowability	Application No.	Applicant(s)	
	09/629,569	STANWOOD, KENNETH L.	
	Examiner	Art Unit	
	Anh-Vu H. Ly	2667	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed May 06, 2005.
2. ☒ The allowed claim(s) is/are 1-25.
3. ☒ The drawings filed on 27 February 2004 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Paul Nagy on July 19, 2005.

The application has been amended as follows:

In The Claims

1. (Currently Amended) A method of efficiently using bandwidth for contention based access and ranging in a time-synchronized communication system, wherein the communication system comprises at least one base station and at least two subscriber units, the method comprising:

(a) waiting for a contiguous new access opportunity time window in an uplink channel, the new access opportunity time window being temporally preceded or followed by at least one of a time window reserved for transmission of data from one of the subscriber units and/or a time window reserved for the transmission of data to the base station from two or more of the subscriber units;

(b) scanning for an access burst message from a one or more of said subscriber units during the new access opportunity time window, said new access opportunity time window having a duration of at least a duration of the access burst message added to a propagation delay;

(c) rejecting all colliding access burst messages received during said new access opportunity time window;

(e) (d) acquiring an access burst message from a corresponding subscriber unit during the new access opportunity time window;

(d) (e) sending a delay time data value to the corresponding subscriber unit for communication time synchronization; and

(e) (f) returning to step (a) if the new access opportunity has expired, else returning to step (b); such that a plurality of access burst messages are acquired from corresponding subscriber units during at least one contiguous new access opportunity time window.

2. (Currently Amended) A method of efficiently using bandwidth for contention based access and ranging in a time-synchronized communication system, wherein the communication system comprises at least one base station and at least two subscriber units, the method comprising:

(a) waiting for a contiguous new access opportunity time window in an uplink channel, the new access opportunity time window being temporally preceded or followed by at least one of a time window reserved for transmission of data from one of the subscriber units and/or a time window reserved for the transmission of data to the base station from two or more of the subscriber units;

(b) scanning for an access burst message from a one or more of said subscriber units during the new access opportunity time window;

(c) rejecting all colliding access burst messages received during said new access opportunity time window;

(e) (d) acquiring an access burst message from an associated subscriber unit during the new access opportunity time window, said new access opportunity time window having a duration of at least a duration of the access burst message added to a propagation delay;

(f) (e) storing a delay time data value for the associated subscriber unit;

(g) (f) determining whether the new access opportunity time window has expired; and

(h) (g) sending the delay time data value to the associated subscriber unit for communication time synchronization and returning to step (a) if the new access opportunity has expired, else returning to step (b), such that a plurality of access burst messages are acquired from associated subscriber units during at least one contiguous new access opportunity time window.

9. (Currently Amended) An apparatus for contention based access and ranging in a time-synchronized communication system, wherein the communication system comprises at least one base station and at least two subscriber units, comprising:

(a) means for detecting an occurrence of a contiguous new access opportunity time window in an uplink signaling channel, the new access opportunity time window being temporally preceded or followed by at least one of a time window reserved for transmission of data from one of the subscriber units and/or a time window reserved for the transmission of data to the base station from two or more of the subscriber units;

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(b) means for scanning for access burst messages from corresponding subscriber units during the new access opportunity time window, said new access opportunity time window having a duration of at least a duration of the access burst message added to a propagation delay;

(c) means for rejecting all colliding access burst messages received during said new access opportunity time window;

~~(e)~~ (d) means for acquiring a plurality of access burst messages from corresponding subscriber units during the new access opportunity time window;

~~(d)~~ (e) means for sending delay time data values to the corresponding subscriber units for communication time synchronization.

16. (Currently Amended) An apparatus for contention based access and ranging in a time-synchronized communication system, wherein the communication system comprises at least one base station and at least two subscriber units, comprising:

(a) a scan window detection module configured to detect an occurrence of a contiguous new access opportunity time window in an uplink ~~signaling~~ channel, the new access opportunity time window being temporally preceded or followed by at least one of a time window reserved for transmission of data from one of the subscriber units and/or a time window reserved for the transmission of data to the base station from two or more of the subscriber units;

(b) a received signal scanning module configured to scan for a plurality of access burst messages from corresponding subscriber units during the new access opportunity time window, said new access opportunity time window having a duration of at least a duration of one of said access burst messages added to a propagation delay;

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(c) a received signal analysis module configured to acquire a plurality of access burst messages from corresponding subscriber units during the new access opportunity time window; and to reject all colliding access burst messages received during said new access opportunity time window; and

(d) a transmission module configured to send delay time data values to the corresponding subscriber units for communication time synchronization.

21. (Currently Amended) An apparatus comprising:

(a) a scan window detection module configured to detect an occurrence of a contiguous new access opportunity time window in an uplink ~~signaling~~ channel of a communication system, the new access opportunity time window being temporally preceded or followed by at least one of a time window reserved for transmission of data from one of the subscriber units and/or a time window reserved for the transmission of data to [the] a base station from two or more of the subscriber units;

(b) a received signal scanning module configured to scan for a plurality of access burst messages from corresponding subscriber units during the new access opportunity time window, said new access opportunity time window having a duration of at least a duration of one of said access burst messages added to a propagation delay;

(c) a received signal analysis module configured to acquire a plurality of access burst messages from corresponding subscriber units during the new access opportunity time window; and to reject all colliding access burst messages received during said new access opportunity time window; and

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(d) a transmission module configured to send delay time data values to the corresponding subscriber units for communication time synchronization.

Allowable Subject Matter

2. Claims 1-25 are allowed.

The following is an examiner's statement of reasons for allowance:

The prior art does not teach or fairly suggest scanning for all access burst messages from corresponding subscriber units of a communication system during a contiguous new access opportunity time window, wherein, the new access opportunity time window having a duration of at least of the access burst message added to a propagation delay, and wherein, rejecting all colliding access burst messages received during the new access opportunity time window, as specified in independent claims 1, 2, 9, 16, and 21.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Oksala (US Patent No. 6,477,151 B1) discloses packet radio telephone services.


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4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anh-Vu H. Ly whose telephone number is 571-272-3175. The examiner can normally be reached on Monday-Friday 7:00am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

avl


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